

Remarks

Claims 16-20 are pending. Claims 16-20 are rejected. Claim 19 is objected to. Claims 1-9 were cancelled previously. Claim 20 is cancelled herein. Claims 10-15 and 24-24 are withdrawn from consideration. All rejections are respectfully traversed.

The invention is a method for distributed remote network monitoring (dRMON) in a LAN. For each of a plurality of ESs to be monitored, an associated dRMON agent in the form of executable code is deployed within the ES. The dRMON agents are configured to communicate with a dRMON proxy connected to the LAN, each dRMON agent implementing RMON functional groups but only capturing and analyzing packets transmitted and/or received by an associated ES. Periodically, the dRMON agents forward agent data including statistics and/or captured packets to the dRMON proxy. The forwarded agent data is combined at the dRMON proxy

Claim 19 is objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 19 the dRMON agents perform continual response time monitoring and forward monitoring results to the dRMON Proxy. Therefore, according to claim 19, the statistics and/or captured packets as recited in Claim 16 must include response time statistics. This added limitation recites a specific limitation not otherwise required by independent claim 16 and therefore clearly further limits the subject matter of claim 16. The objection should be withdrawn.

Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desai, et al., (U.S. 5,781,703 – “Desai”), in view of Engel, et al., (U.S. 6,115,393 – “Engel”). The rejection is respectfully traversed.

The invention performs distributed remote network monitoring (dRMON) in a LAN deploying, within each of a plurality of ESs to be monitored, executable code comprising an dRMON agent associated with the ES configured to communicate with a dRMON proxy connected to the LAN, each dRMON agent implementing RMON functional groups but only capturing and analyzing packets transmitted and/or received by the ES as explicitly recited in claim 16.

By only capturing and analyzing packets transmitted and/or received by each ES, it should be understood that the invention monitors traffic performance in the LAN using each of the plurality of ESs as an observation point. In contrast, Desai describes intelligent agents that monitor the internal performance of the devices in which they reside, such as CPU performance, see, e.g., col. 1, lines 29-31:

In conventional computer performance monitoring applications, the monitoring application generates a request for data, such as “How busy is the CPU?”. This request is

See also, col. 2, lines 6-9:

a Data Server, and a Proxy Controller. The Intelligent Remote Agents receive commands instructing them to collect performance data on the Agent’s associated computer system, wherein the commands comprise predicates for

Further, Desai collects data only in response to specific SITMON requests to monitor a situation within a device hosting an intelligent agent, see col. 10, lines 31-42, below:

35 **Thereafter, an operator on the operator monitoring work-
station 20 issues a situation monitoring request to determine
whether any processes running on Server #1 or Server #2 are
using an inordinate amount of CPU time. i.e., greater than
some threshold value or percentage. The request is trans-
mitted to the Data Server 14, which in turn forwards it to the
Proxy Controller 16. The Proxy Controller 16 creates one or
more commands for the request containing a predicate and
40 sampling interval. The Proxy Controller 16 then transmits
the commands to the Intelligent Remote Agents 18 on Server
#1 and Server #2.**

In contrast, the invention “only capturing and analyzing packets transmitted and/or received by the ES” and forwards “periodically by the dRMON agents, agent data including statistics and/or captured packets to said dRMON proxy.” Therefore, it should be readily understood that Desai performs device monitoring, while the invention monitors, via a plurality of ESs each including a dRMON agent as claimed, traffic across the LAN. Therefore, Desai can never be used to make the invention obvious.

Engel fails to cure the defects of Desai. Engel describes a physical device (probe) configured to be inserted in communication lines between other devices to monitor communications between the other devices, see Engel, col. 6, lines 52-65, below:

55 Network Monitor 10 (referred to hereinafter simply as Monitor 10) is the data collection module which is attached to the LAN. It is a high performance real time front end processor which collects packets on the network and performs some degree of analysis to search for actual or potential problems and to maintain statistical information for use in later analysis. In general, it performs the following.

A person of ordinary skill in the art would never confuse a physical processor inserted in communications lines between networked devices as in Engel with dRMON agents deployed in ESs, as claimed. Further, the Examiner's assertion that Engel teaches dRMON agent data is erroneous, see, e.g., col. 27 of Engel, which describes a monitor registering with a management workstation, which is the operator interface for the monitor, see col. 6, line 66 – col. 7, line 9. There is an agent resident in the monitor to communicate with the management workstation, but it should be understood that the monitor agent can never be a dRMON agent deployed in ESs, as claimed. The Engel agent is deployed in a device having the sole purpose of monitoring i.e., a probe. Therefore, the rejection of claim 16 based on the combination of Desai and Engel should be reconsidered and withdrawn.

The same is true for claim 19, where the dRMON agents perform continual response time monitoring and forward monitoring results to the dRMON Proxy. There is no suggestion of continual response time monitoring by dRMON agent in either reference.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desai and Engel, and in further view of Dobbins, et al. (U.S. 5,790,546 – “Dobbins”).

Dobbins describes a method for secure fast packet switching in which MAC ID of devices sending or receiving packets across the network are recorded by an agents residing in switches in the network and associated with ports on the switches. Dobbins uses the information recorded by the agents to set up virtual connections or virtual LANS in the network in order to ensure

varying QoS levels for different sets of devices on the network. As shown in Figures 7A and 7B, the agent resides in a switch, which would never be confused with an ES by a person of ordinary skill in the art. The agents described by Dobbins cannot perform their function if they resided on an ES instead of a switch. The Examiner's assertion that Dobbins has anything to do with dRMON proxies or dRMON is pure conjecture. There is nothing in Dobbins that has anything to do with RMON as in Engel, or the command driven dRMON as in Desai. The same is true for claim 18.

It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicant's attorney at the number listed below. Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-6350.

Respectfully submitted,
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